Amendments to the Claims

This list of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A switch fabric network for routing packets, wherein each of said packets comprise packet field data, comprising: a switch having a plurality of ports, wherein said switch receives a packet on one of said plurality of ports, and based solely only on said packet field data and the number of said ports, transmits said packet on a second one of said plurality of ports.

Claim 2 (currently amended): A system of claim 1 wherein A switch fabric network for routing packets, wherein each of said packets comprise packet field data, said packet field data comprising a turn pool, wherein said turn pool comprises a plurality of turn values, and a turn value indicates the position of said a second port relative to said a first port, said network comprising: a switch having a plurality of ports, wherein said switch receives a packet on said first port of said plurality of ports, and based on said packet field data and the number of said ports, transmits said packet on a said second port of said plurality of ports.

Claim 3 (cancelled)

Claim 4 (currently amended): A system of claim \pm $\frac{2}{2}$ wherein said packet field data is comprised of a credit length, a

bit count, a turn pool, an operation, a Path Identifier (PID) index, a Maximum Transmission Unit (MTU) and an Extended Unique Identifier (EUI).

Claims 5-12 (cancelled)

Claim 13 (previously presented): The system of claim 2 wherein said packet field data further comprises a bit count.

Claim 14 (currently amended): A switch for routing a packet, wherein said packet comprises packet field data, comprising:

a plurality of ports;

means for receiving said packet on a first of said ports;

means for determining the appropriate a second port on which to transmit said received packet, using only said packet field data and the number of said ports; and

means for transmitting said packet on said determined appropriate second port.

Claim 15 (currently amended): The switch of claim 14, wherein A switch for routing a packet, wherein said packet comprises packet field data, said packet field data comprising a turn pool, wherein said turn pool comprises a plurality of turn values, and a turn value indicates the position of said determined a second port relative to said a first port, said switch comprising:

a plurality of ports;

means for receiving said packet on said first port of said plurality of ports;

means for determining said second port on which to transmit said received packet, using said packet field data and the number of said ports; and means for transmitting said packet on said second port, where said determining means utilizes said turn pool to select said appropriate second port.

Claim 16 (currently amended): The switch of claim 15, wherein said packet field data further comprises a bit count and said determining means utilizes said bit count to select said appropriate second port.

Claim 17 (currently amended): The switch of claim 14 15, further comprising means to modify said packet field data prior to transmitting said packet.

Claim 18 (currently amended): A method of routing a packet from a source to a destination within a fabric having at least one switch, said switch having a plurality of ports, said method comprising:

encapsulating said packet with a header, wherein said header comprising packet field data;

transmitting said encapsulated packet from said source to said switch;

receiving said encapsulated packet by said switch on a first of said ports;

determining an appropriate output a second port using only said packet field data and the number of said ports; and

transmitting said encapsulated packet from said switch via said appropriate second output port.

Claim 19 (currently amended): The method of claim 18 further comprising modifying said packet field data prior to transmitting via said appropriate output second port.

Claim 20 (currently amended): The method of claim 18, whereby A method of routing a packet from a source to a destination within a fabric having at least one switch, said switch having a plurality of ports, said method comprising:

encapsulating said packet with a header, wherein said header comprises packet field data, said packet field data comprises comprising a turn pool, wherein said turn pool comprises a plurality of turn values, and a turn value indicates the position of said appropriate output a second port relative to said a first port; transmitting said encapsulated packet from said source to said switch;

receiving said encapsulated packet by said switch on a said first port of said plurality of ports; determining said second port using said packet field data and the number of said ports; and

transmitting said encapsulated packet from said switch via said second port.

Claim 21 (previously presented): The method of claim 20 whereby said packet field data further comprises a bit count.

Claim 22 (currently amended): The method of claim 19 whereby said packet field data comprises a turn pool, wherein said turn pool comprises a plurality of turn values, and a turn value indicates the position of said appropriate output port relative to said first port 20 further comprising modifying said packet field data prior to transmitting via said second port.

Claim 23 (previously presented): The method of claim 22 whereby said packet field data further comprises a bit count.

Claim 24 (currently amended): The method of claim 18 20, wherein said fabric comprises a plurality of switches, and said method further comprises repeating said receiving, determining and transmitting steps until said packet reaches said destination.

Claim 25 (previously presented): The method of claim 21, further comprising using said turn pool and bit count of said packet received by said destination to create a second header, used by said destination, to encapsulate a second packet to be routed from said destination to said source.

Claim 26 (previously presented): The method of claim 23, further comprising using said turn pool and bit count of said packet received by said destination to create a second header, used by said destination, to encapsulate a second packet to be routed from said destination to said source.